

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPL. No.:	10/758,177	§	TC/A.U.:	2837
FILED:	January 15, 2004	§	EXAMINER:	Fletcher, Marion
IN RE:	Negoescu et al	§	CUSTOMER ID.:	58,417
		§	ATTY DCK No.:	OWND002US1
TITLE:	ELECTRONIC MUSICAL PERFORMANCE INSTRUMENT WITH GREATER AND DEEPER CREATIVE FLEXIBILITY			

Board of Patent Appeals and Interferences
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

This is an appeal from the Final Office Action, mailed on March 26, 2007 finally rejecting claims 1-16.

The fee for filing this Brief on Appeal is \$250.00 and is being paid via Credit Card Charge Authorization which authorizes \$725 - \$225 for the extension \$250 for the Notice and \$250 for the Brief). If that amount is insufficient, or should any additional fees under 37 C.F.R. § 1.16 to 1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct the additional fees from said Credit Card.

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REAL PARTY IN INTEREST

The real party in interest is Owned LLC and Licensee Open Labs, Inc. both of Austin Texas

RELATED APPEALS AND INTERFERENCES

The Applicants are **not** aware of any related appeals, interferences or judicial proceedings that will directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-16 are currently pending and have been finally rejected.

Claims 1-5 and 8-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Monte et al.* (U.S. Pat. No. 5,115,705; hereinafter referred to as "*Monte*").

Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Monte* in view of *Sitrick et al.* (U.S. Pub. No. 2003/0100965; hereinafter referred to as "*Sitrick*").

Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Monte* in view of *Otyza et al.* (U.S. Pub. No. 5,929,362; hereinafter referred to as "*Otyza*").

Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Monte* in view of *Gruenbaum* (U.S. Pub. No. 5,565,641; hereinafter referred to as "*Gruenbaum*").

The rejections of **Claims 1-16** are being appealed.

RESPONSE

Page 6

Atty. Docket No.: OWND002US0

Customer ID No.: 58417

Appl. No.: US10/758,177

STATUS OF AMENDMENTS

All amendments to the claims have been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

In general, the present invention relates to a system and method for generating music. Each claim being appealed is summarized below. References to the Specification refer to the paragraphs of the published application, U.S. Pat. App. No. 2004/0206226 A1, published October 21, 2004.

Claim 1 is an independent claim that relates to an electronic music instrument (100, FIG. 3; ¶0035) with human inputs (104, FIG. 8; ¶0035), monitoring circuitry (152, FIG. 5; ¶0043) and general purpose computer CPU and operating system (150, FIG. 5; ¶0044) capable of running alternative sound packages (170, FIG. 5; ¶0051)

Claim 2 is a dependent claim that includes all the elements of **Claim 1**, as described above, specifies the alternative sound packages as sound synthesis packages (170, FIG. 5; ¶0051).

Claim 3 is a dependent claim that includes all the elements of **Claim 2**, as described above, and where the boot code is split between nonvolatile memory and in other memory locations (164, 166, FIG. 5; ¶0044).

Claim 4 is a dependent claim that includes all the elements of **Claim 3**, as described above, and where the nonvolatile memory is a RAM drive (164, FIG. 5; ¶0044).

Claim 5 is a dependent claim that includes all the elements of **Claim 3**, as described above, and where the nonvolatile memory is flash memory (164, FIG. 5; ¶0044).

Claim 6 is a dependent claim that includes all the elements of **Claim 1**, as described above, and further includes an UPS (250, FIG. 7; ¶0046).

Claim 6 is a dependent claim that includes all the elements of **Claim 1**, as described above, and further includes an UPS (250, FIG. 7; ¶0046).

Claim 7 is a dependent claim that includes all the elements of **Claim 1**, as described above, and further includes modular human input surfaces (130, 132, 134, FIG. 3; ¶0040).

Claim 8 is a dependent claim that includes all the elements of **Claim 7**, as described above, and further a surface includes a display (126, FIG. 3; ¶0040).

Claim 9 is a dependent claim that includes all the elements of **Claim 8**, as described above, and further includes mechanical user interfaces (130, 132, 134, FIG. 3; ¶0040).

Claim 10 is a dependent claim that includes all the elements of **Claim 7**, as described above, and further includes a combination joystick, knob and push button input (300, FIG. 13 & 14; ¶0058).

Claim 11 is a dependent claim that includes all the elements of **Claim 7**, as described above, and further a surface includes an array of keys (102, FIG. 3; ¶0040).

Claim 12 is a dependent claim that includes all the elements of **Claim 7**, as described above, and further a surface includes a display (134, FIG. 3; ¶0040).

Claim 13 is a dependent claim that includes all the elements of **Claim 7**, as described above, and further a surface includes a display (132, FIG. 3; ¶0040).

Claim 14 is a dependent claim that includes all the elements of **Claim 7**, as described above, and further a surface includes a combination of types of inputs (¶0035).

Claim 15 is a dependent claim that includes all the elements of **Claim 1**, as described above, and further a surface includes a display (182, FIG. 3; ¶0053).

Claim 16 is a dependent claim that includes all the elements of **Claim 15**, as described above, and further a surface includes a display (182, 500 ¶0054).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether a group of claims consisting of **independent claim 1 and dependent claims 4-5 and 8-15** are unpatentable under 35 U.S.C. §103(a) over *Monte*.
2. Whether a group of claims consisting of **dependent claim 6** is unpatentable under 35 U.S.C. §103(a) over *Monte* in view of *Sitrick*
3. Whether a group of claims consisting of **dependent claim 7** is unpatentable under 35 U.S.C. §103(a) over *Monte* in view of *Otyza*.
4. Whether a group of claims consisting of **dependent claim 16** is unpatentable under 35 U.S.C. §103(a) over *Monte* in view of *Gruenbaum*.

ARGUMENTS OF APPELLANTS

1. **Whether a group of claims consisting of independent claims 1 and dependent claims 3-5 and 8-15 are unpatentable under 35 U.S.C. §103(a) over *Monte*.**

Monte represents a technology that appears to be an improvement of prior art electronic musical instruments. The claimed device represents what the industry press and professional new product reviews have dubbed “A New Class of Super Instrument” for which the applicants have been awarded the prestigious Pro Audio Review PAR Excellence Award in 2005 for the best new product in the MI (“music instrument”) industry.

Monte does not disclose or suggest all of the elements of the amended or preamended claims. For example *Monte* makes no mention of an operating system let alone the type of operating system claimed. Furthermore, *Monte* does not even suggest that its programmed microprocessor is “capable of running alternative sound synthesis software packages”. The Examiner does not and cannot cite any language in *Monte* which touches on these claim limitations. By definition programmed microprocessor is a special purpose device not a general purpose operating system.

Operating System Limitation(s)

The examiner makes reference to several sections of *Monte* to support a finding of the operating system elements of the claimed inventions. Specifically, the Examiner cites the “Abstract” which makes no reference either to an operating system or to a type of operating system let alone in the context of a general purpose computer or a general purpose personal computer. The Examiner cites “figures 22 and 23” (presumptively this citation includes figures 23A-23P). All of these figures illustrate hardware and make no reference to any type of software. The Examiner also cites several sections of the written specification in addition to the abstract including: Col 16, lines 28-32; Col 16, lines 36-52; Col 19, lines 40-50; Col 20, lines 10-60.

None of these sections make any references to a operating systems - let alone the type of operating systems claimed. To the contrary the system cited employs programmed microprocessors which are inherently limited to the system which has been programmed on them – hence a special purpose device which are described and taught away in the current specification. Consequently, none of these sections of the specification makes any reference to operating systems capable of running alternative sound synthesis software packages as claimed. It is this freedom to use and modify the sound engines of their choosing rather than the manufacturer's choosing that has drawn users to applicant's licensee's products. *See* the attached 3rd party product reviews.

Modular Control Surfaces to Change Configuration of User Interface

The Examiner cites Figure 8 and the brief description of Figure 8 at Col. 5 lines 10-12 which references a “snap-in modular hammer flange having 12 hammer sections which is including in the Figure 1 keyboard.” There is nothing in *Monte* that discloses or suggests that the modularity be used to present the user with differently configured user interface as claimed just to replace individual hammer flanges. This does not change the functionality of the instrument it only effects the reparability of the instrument.

Input Output Module

The Examiner cites Figure 8 of *Monte* to “disclose the musical instrument which includes a removable input and output module. Figure 8 references a keyboard made of modular like components ie an input interface. Applicant is at a loss to understand how this device is an output device – it generates no output.

2. **Whether a group of claims consisting of dependent claim 6 is unpatentable under 35 U.S.C. §103(a) over *Monte* in view of *Sitrick***

Section 103(b) Rejections based on *Monte et al.* and *Sitrick et al.*

The Examiner cites *Sitrick* in combination with *Monte* to support a §103 rejection of claim 6. *Sitrick* is not a musical instrument. In the plethora of available references to electronic musical instruments, the examiner did not find a single reference that included

a UPS therefore the Examiner is forced to point to a sheet music presentation machine. It is used to support a performance not to make a performance. There is nothing in *Monte* or *Sürick* to suggest the combination.

3. Whether a group of claims consisting of dependent claim 7 is unpatentable under 35 U.S.C. §103(a) over *Monte* in view of *Otyza*.

Otyza discloses a guitar that has a removable fretboard. The Examiner relies on the language in column 3 lines 8-13 which states the following from the Summary of Invention section: “. . . interchangeably mount any one of a plurality of fretboard sections having various string configurations.” However all of the fretboards shown in *Otyza* are the same. The string configurations may be differently tuned but the human interface remains for the fretboards shown and taught in *Otyza* remain the same. The variation in configuration shown is no different than two identical instruments which are not identically tuned. Furthermore, there is nothing in either *Monte* or *Otyza* to suggest combining elements of a Guitar based invention with a synthesizer based invention. If a user wanted to achieve the objective of *Otyza* using a synthesizer, they are more likely to change the settings of the existing control services to achieve the different sound objective of switching the fret boards with different string configurations rather than replace any of the control services.

4. Whether a group of claims consisting of dependent claim 16 is unpatentable under 35 U.S.C. §103(a) over *Monte* in view of *Gruenbaum*.

Section 103(a) Rejections based on *Monte et al.* and *Gruenbaum*

The Examiner bases a §103 rejection on a combination of *Monte* and *Gruenbaum*. The interchangeable parts in *Monte* are individual keys. It makes no sense to combine *Monte* and *Gruenbaum*, the result would be a rack mountable single piano key which serves no purpose. There is no suggestion in *Monte* that any of its electronics be employed in a configuration that can be removed and placed in a rack let alone an input output module.

Therefore, Applicants submit that the current grounds of rejection are in error and that the independent claim 1 and dependent claims 2-16 are in condition for allowance. Therefore, a reversal of the §103(a) rejections of claims 1-16 is respectfully solicited.

RESPECTFULLY SUBMITTED,
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Heinz Grether PC

Date: 22 August 2007

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CLAIMS APPENDIX

(Currently Pending Claims)

1. (previously amended) An electronic musical performance instrument comprising:

a musical instrument input interface manipulatable by a human operator integral with;

electronic circuitry for monitoring the input keys for input by the human operator; and

integral with a central processing unit running a general purpose computer operating system capable of running alternative sound synthesis software packages to generate sound signals from the input from the human operator's manipulation input to the musical instrument interface.
2. (previously amended) The musical instrument of claim 1 wherein the computer operating system is a personal computer operating system and is capable of running alternative sound synthesis software packages.
3. (previously amended) The musical instrument of claim 2 wherein boot code the general purpose computer operating system for the central processing unit is stored in nonvolatile solid state memory and portions of the operating system are stored in another memory storage location.

4. (previously presented) The musical instrument of claim 3 wherein the nonvolatile solid state memory is flash memory.
5. (previously presented) The musical instrument of claim 3 wherein the nonvolatile solid state memory is a RAM drive.
6. (previously presented) The musical instrument of claim 1 wherein the musical instrument includes a UPS which supplies power for the operation of the instrument when mains power is lost and which stores power collected when mains power is connected.
7. (previously amended) The musical instrument of claim 1 wherein the human manipulatable interface includes at least two interface surfaces and at least one of the interface surfaces is modular and can be removed or swapped with another modular human manipulatable interface surface with a different interface configuration.
8. (previously presented) The musical instrument of claim 7 wherein the modular surface includes a display.
9. (previously amended) The musical instrument of claim 8 wherein the modular surface includes mechanical user interfaces.
10. (previously presented) The musical instrument of claim 7 which includes a mechanical user interface with a single input control that can detect joystick-like x

and y coordinate input and encoder wheel rotational input and pushbutton-like key input.

11. (previously presented) The musical instrument of claim 7 wherein one of the modular surfaces includes an array of keys.
12. (previously presented) The musical instrument of claim 7 wherein one of the modular surfaces includes an array of rotating knobs.
13. (previously presented) The musical instrument of claim 12 wherein one of the modular surfaces includes an array of sliders.
14. (previously presented) The musical instrument of claim 7 wherein one of the modular surfaces includes a combination of keys, sliders and/or knobs.
15. (previously presented) The musical instrument of claim 1 which includes a removable input and output module.
16. (previously amended) The musical instrument of claim 15 wherein the removable input output module can be mounted in a rack.

EVIDENCE APPENDIX

No evidence has been submitted in conjunction with this application.

- A. Article from the July 2004 Copy of *FutureMusic* magazine - a popular music industry magazine.
- B. Article from the August 2004 Copy of *Keyboard* magazine - another popular music industry magazine.
- C. Picture of the prestigious 2005 **Pro Audio Review PAR EXCELLENCE Award** earned by Open Labs Licensee of the Applicants.
- D. Article from the March 2006 **Remix** magazine - another popular music industry magazine.
- E. Article from the February 23, 2006 **New York Times** newspaper
- F. November 3, 2006 on-line article at **CNN Money** - a popular news web site.

RELATED PROCEEDINGS APPENDIX

There are currently no related proceedings associated with this application.

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< "No one has ever really taken the physical concept of computer music making, smashed it apart and put it all back together with the musician in mind. Until now, that is..." >

WELCOME TO FUTURE MUSIC



LET'S FACE IT, a PC as a music making device is not ideal, and no I'm not getting all Mac biased before you ask. What I mean is that the humble computer, great as it is, was never designed with the musician in mind; it was designed for running spreadsheets and word processors, not for playing tunes and recording instruments. And while there have been several worthy, 'dedicated' PC music solutions with all the add-ons and software you need, they are still, at heart, PCs with a few bits added. No one has ever really taken the physical concept of computer music making, smashed it apart and put it all back together with the musician in mind. Until now that is. Open Labs Open-Synth neko64 (to give it its rather pompous full name) is a PC designed for the musician from the ground up. It drags the whole computer music studio thing kicking and screaming into the 21st century. It's got a touch screen, three control surfaces, loads of built in software and is built like a brick shit house. And guess what, lucky little old me got the first one in the UK and I've spent the last few weeks testing it and fiddling with its innards. Anyway, you can read what I think of it on p26. Elsewhere we celebrate 150 issues with 150 tips on making better music - everything you need from writing to mastering - and we give The Orb's Alex Paterson the 'Pioneer' treatment, much to his hilarious disgust.

So what'll happen over the next 150 issues? neko power in a PDA? Top quality monitors the size of peas? Beer biscuits? Ah, whatever happens you can bet your life come issue 300 my ugly mug'll still be here. Until then!

Andy Jones

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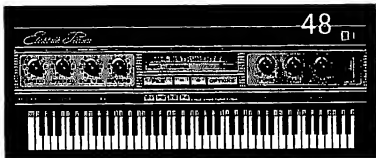
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26



NI Elektrik Piano 48
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Vernona Retroverb 50
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Tascam 2488 54
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Another addition to Korg's elite workstation range, this one even has a valve onboard...

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Albums 86
The good, the bad, the ugly...

OUR REVIEWS

All our writers are working engineers or producers, with up-to-date, hands-on experience, not merely journalists who have turned their hands to music technology. Review gear is always tested in a fully equipped pro studio, during real working sessions to ensure it lives up to all our and your expectations. And that's why you can trust what we say.

OUR REVIEWERS

Trev Curwen is an engineer and producer who's worked with Porphered, Spiritualized and many others.

Dan Duffell is a veteran engineer, producer, journalist, remixer, product designer and author.

TJ Glover is our plug-in expert (see p64 and p146) who also writes music and produces remakes from his software studio.

Martin Holmes is a freelance engineer with a diverse clientele. Recent visitors to his studio include jazz guitarist Martin Taylor and numetal band Skunk.

Andy Jones is possibly the greatest and most shameless self-publisher in the history of the music technology sphere. Need we go on?

Jon Musgrave is an engineer and producer whose diverse credits include Culture Club and Beverley Knight.

Oz Owen is FMs Reviews editor and has years of experience working and producing in various pro studios.

What Les Selby doesn't know about funk-based keyboards, be they real or virtual, just isn't worth knowing.

OZ'S MONTH OF GEAR...



Given the prominent position a computer takes in the modern studio it comes as no surprise to see

the likes of Open Labs' neko offering a complete computer recording set-up within the confines of a rather large keyboard. There's no doubt that it's a mighty powerful machine that could easily replace a whole load of stuff in your studio, but haven't we seen Tascam try a similar approach recently with the mighty SX-1 production suite that while popular with a niche didn't exactly fly off the shelves? I guess time will tell...

Oz Owen - Deputy Editor

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I FIRST SAW the Open Labs OpenSynth neko at the NAMM 2003 show. It was possibly the most dramatic looking piece of equipment at the show, coming across rather like one of those future/concept cars you see at motor shows: It grabs your attention with its futuristic looks, but does it work and, more to the point, will it ever be released? Well, over a year down the line and the first production units of OpenSynth neko are finally shipping and I have had the pleasure of spending a couple of weeks with the first one sent to the UK.

First impressions

There was a ridiculous scene in some old sci-fi thing I watched once when the character played a keyboard 'from the future'. It was an overblown effort packed with controls and sliders and made every sound you could imagine (probably). This springs to mind when looking at neko.

Initially this looks like a grand old dame of a keyboard, full of its own melodramatic self-importance, but its layout is logical and functional, almost similar to how you try and lay out your PC music set-up at home (now there's a clue to neko's architecture that we'll come on to later).

There's a rack of 16 sliders, full-sized QWERTY keyboard, 27 rotaries, cursors, all manner of associated buttons plus a number pad – you couldn't possibly ask for any more stuff to switch, slide or press. So with all of this control neko must be one hell of a synth, right? Well,

according to Open Labs' claims it might well be the only instrument today's musician will ever need...

It's the world's most powerful Open System keyboard workstation. Open Sounds: neko™ can emulate almost any instrument ever invented by hosting industry standard VSTi software synthesizers, samplers and audio processing plug-ins," so Open Labs say. Well, that sounds pretty amazing so far, but the clue to the overall architecture comes with this quote: "Open System: neko™ utilises industry standard micro-KITX motherboards and processors that allow you to run standard operating systems, such as Microsoft Windows and use standard PC-compatible hardware."

Put two and two together here and what you basically end up with is a machine with PC processing that runs a PC operating system with PC expandability, a PC keyboard and a whole raft of PC connectivity. Mmmmm, so Open System: neko™ (and do forgive me I'll drop the 'm' from now on) is, in fact, a PC, right?

Yes. It is. But in true Jeremy Clarkson journalistic style I'm going to say "but it's totally unlike any PC the world has ever seen..."

neko, neko, because (sorry...)

Open Labs claim that the neko system is a world apart from your bog standard PC World system and, let's face it, with that price tag it bleedin' well should be! As such, this review will be a

bit different from your average FM one. For example, I'm not going to look too closely at the supplied software as it's all third party stuff (bar Open Labs' OS which we'll get to later) so you can run these applications on any Windows XP system, and the chances are that it's already been

THE RANGE

It's hard to get a complete handle on the range – as you can specify a lot of the specs yourself – but it broadly breaks down into four products, the basic info of which is...

OpenSynth neko – 3GHz Pentium version, memory starts at 512Mb RAM, 80Gb hard drive plus the same MIDI controllers and software as that tested here. Also available in a 76 note keyboard version.

OpenStudio neko – the above without the keyboard but with touch screen, the software, the ins and outs plus Pentium processor (from 2.4GHz), 80Gb drive, up to 4Gb RAM.


OpenSynth neko64 – the 64 bit AMD version as tested. Top of the range keyboard and is also available in a 76-note version. Up to 8Gb RAM. See left for other specs.

OpenSynth neko64 – as OpenSynth minus keyboard.

Controller One – the 15-inch touch screen. Great!



< "Initially, Open Labs Opensynth neKo looks like a grand old dame of a keyboard, full of its own melodramatic self-importance, but its layout is logical and functional" >



reviewed in
FM before. What
I'm going to concen-
trate on is the factor that
sets neKo apart, what makes it
tick, its all-in-one approach and, obvi-
ously, if it's any good!

The first big difference over
and above anything else is obvious: it's a
ruddy great big keyboard system for a
start (and when I say "ruddy" great, I
mean it. If you have any doubts, you
should try dragging it up two flights to
your loft studio - believe me, you will
count every one of those 26 steps).

The second big difference is one
thatt could be quite simply great. It
claims to have instant boot up. I'll say
that again a PC with INSTANT BOOT
UP! Turn it on and it really is on. Ready
up and running, make music now,
none of that tedious "oh look, I'm load-
ing Windows", none of that "oh look
I'm going to take ages to look at a new
hard drive you've had installed" and
hopefully none of that "we're ready, oh
no, not quite yet, the timer's just
appeared on your pointer again for no

reason".

That's what they
claim, that's the
theory, and what a great
theory that is.

The reality, however, is, initially, a
bit different. It actually takes just over a
minute by my counting which is,
admittedly, a good 30 seconds faster
than my laptop, but still not as good as
I'd hoped for when I initially read the
grandiose claim.

It turns out that what Open Labs
claim is actually implemented by
putting neKo into 'sleep' mode. Of
course, this is available in any com-
puter so it's a little lofty of Open Labs
to infer that this is unique in some way.
Still, with battery backup you can also

run sleep
mode on the
move too, which will
make the keyboard very
usable in a live arena.

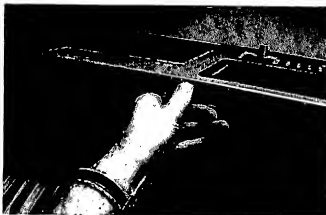
On initial boot up, the screen is
upside down (and you have to power
this up separately), although it soon
flips over to reveal a glimpse of
Windows XP Pro before neKo's very

Opensynth neKo -
the concept car of
the music world?

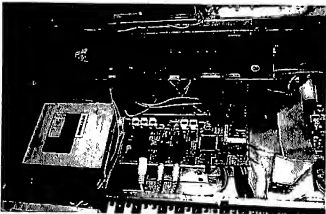
OPEN NEKO!

Well, they say it's an open system, so how easy is it to open?

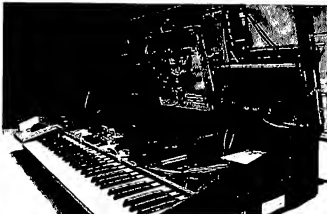
- 1 Undo the two screws (right) on each end with the included screwdriver. Sorry Open Labs, I know you say don't do this on the carpet but my keyboard stand isn't sturdy enough to hold it!



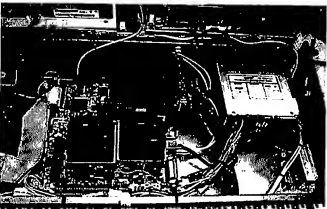
- 2 Undo four more screws at each end and lift the front panel to reveal the familiar looking interior. Nice watch.



- 4 Check out what's inside. To the left we have the CDRW, M-Audio 1010 and hard drive.



- 3 The panel locks in place as shown, enabling you to easily get to the guts of the system and upgrade the memory, drives or cards.



- 5 To the right we have the motherboard with two AMD Opteron processors and spare PCI slots plus the power supply. Note: these shots were taken with a digital camera and I'm no photographer!

own OS takes over. This neat little system works as an app within Windows and enables you to access every neko feature and, usefully, you can also navigate around the rest of the onboard PC files with the search and navigation functions. So if you want to you can ignore Windows completely. It's great to have a shell like this that seems to focus on the musical matter rather than all of that other OS nonsense you often get.

If you do want to use XP rather than neko's OS, the QWERTY keyboard offers a standard 'Windows' button to flip between the two Operating Sys-

tems (positioned between the Alt and Ctrl buttons). Using the Master Control 'joystick' (which annoyingly doesn't control the onscreen cursor in the Windows environment) and cursor buttons you navigate around neko's OS. There's also a row of buttons beneath the small LCD that enables you to do the same thing more directly, accessing functions or launching the applications at the touch of a button, rather like keyboard shortcuts or function buttons.

The software icon types are shown onscreen as blocks, like Tetris shapes. Clicking on them (just a single click) either reveals more blocks with applica-

tions or actually launches software.

Apps

neko comes with three main music applications pre-installed - Traktion, Orion Pro and Karsyn - plus an optional Gigastudio 32 available on a separate disk. There's a whole host of virtual instruments and effects (see the Software Software boxset on p34), which covers most instruments as well as basic effects.

As in Windows, software that's running is listed horizontally along the bottom of the screen and clicking on the bar will take you from one applica-



■ The modified M-Audio 1010 has all the ins and outs you should need

tion to another. It's so easy to use that it actually makes you forget you're using a Windows machine, which will be important to some people (ho hoi), but I actually get on pretty well with Windows XP musto-wise, so it's really not such a crucial factor for me. But I can certainly see the neKo OS offering a more streamlined solution for those wanting to concentrate on music-making rather than being distracted by all those other teasing apps that Windows offers to disrupt your work. *Hidden & Dangerous 2*, anyone?

That screen...

...and the other controllers. By now you'll think I have ignored or forgotten about another element that attempts to make neKo so much more than a PC stuck to a keyboard. Yep, that huge screen stuck in the middle of the unit. The great news is that it's touch-sensitive so you can control all of the onboard music software with your fingers or, more correctly, finger, as it's a 'one control at any one time' deal.

This hands-on control was the most exciting aspect to me when I initially saw Open Labs' system all that time ago - the thought of controlling soft synths just by twirling them on screen and shifting between applications without needing a mouse had me, frankly, a little too excited. (And after doing it so long in software I forget that I had all that hands-on power with my old hardware, but that's another story and tedious argument.)

I actually thought that Open Labs had missed a trick and underplayed the revolutionary aspect of this in the pre-marketing of neKo, but at the end of the day it's just a TFT screen with touch sensitivity (which is available separately from Open Labs for anyone to buy with whatever set-up they have, by the way).

Its usefulness really depends on the applications you are running. Accurate clicking and dialling really depend on the size of your fingers and the size of the icons you are trying to control.

◀ "Open Labs claim that their Opensynth neKo system is a world apart from your bog standard PC World type system and, let's face it, with that kind of price tag it bleedin' well should be" ▶

Within Traktion, for example, I found it easier to use my fingers to drag new instruments on to a track but some icons were simply too small for my fat digits. Open Labs supply a screwdriver for opening the unit up (more on this later) but you can actually use it for any thin object for more precise clicking and dragging. Although annoyingly, this is on occasion a little hit and miss: you have to be positioned right above whatever tool you are using to get the best results and even then there may be a little screen 'latency'. But there again, you aren't supposed to use this tool and, luckily, some of the smaller icons onscreen (such as the transport controls, dials and faders) are linked to other physical controls on neKo, so the screen isn't essential for control.

MIDI matters

So on to these MIDI controllers. I've already mentioned the Master Control Panel (above right on the unit and also referred to in 'neKo-speak' as the Alpha controller). Here you will also find a set of transport controls and some keys to switch between neKo's applications.

Over on the left side of the unit are 16 sliders (the Linear controller area) and 24 rotaries. These can be assigned, just like any other MIDI control surface, to whatever applications and virtual controllers you use.

With an all-in-one system such as this you'd expect that these controllers would have been set up to work 'out of the box' with the installed software. Unfortunately, this is not the case, which I think is a bit of an oversight. I thought one of the ideas behind neKo was to take the concept of PC music making to the next level, so to find that you have to configure the MIDI controllers to the software that is pre-installed is a bit disappointing, especially when you're a lazy bastard like me! Still with neKo's interface this is thankfully an easy enough job, espe-

cially within Karsyn (see boxout on page 33) and Open Labs have informed me that they will be supplying several default mappings. These will all be available from their website (and with newly shipped neKos) by the

WHAT THEY SAY

Why did you develop neKo?

"Our main design goal was to create an open platform musical keyboard workstation that will allow artists to utilise the numerous software applications and plug-ins in a perpetually upgradeable, all-in-one solution that can be used in a live performance or studio setting."

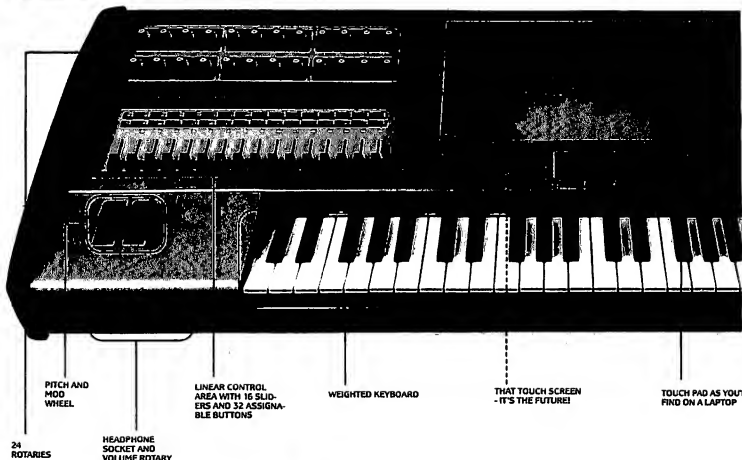
What do you feel are its main strengths?

"The neKo64's main strengths are the ability to run virtually all Windows-based music applications within an all-in-one design replacing multi-component set-ups. You get complete control over software applications and plug-ins via the 15" screen and 4 upgradeable control modules. neKo has unsurpassed audio quality at 24/97 rates and the single and dual 64-bit processor options make neKo64 the most powerful keyboard workstation available."

How are you positioning it in the market place?

"The neKo64 is a cross-discipline product. We at Open Labs believe that the modern musician will have to interface with a computer and computer related instruments on a daily basis. This is why we tried to equip the neKo64 with the ability to do virtually anything that the modern musician will need. As a musical keyboard, the neKo64 can play more sounds than any other traditional electronic keyboard. As a portable studio, the neKo64 is ideal for multi-track recording in the studio or on location."

GETTING AROUND NEKO'S FRONT PANEL



WILL IT, ERR, PLAY OTHER APPS?

As part of my extensive tests I decided to see what else neko can do outside of the music world. It's pretty obvious that it can do anything a PC can do including going online (a network adaptor is included). Heck, it even loads games up so if you want to play games mid-studio session it'll do that as well, although that kind of negates the point of it. After all, Open Labs have designed the whole thing to make music making a good deal easier without the distraction of other PC apps. Still, I had to give it a go as part of my research...



Hidden & Dangerous Deluxe with a touch screen. Mmm...

time you read this.

Once you have all of the configurations made I suspect that you, like me, will end up using a combination of screen, physical controls (dials, sliders) and occasional mouse clicks when making your music. I used the screen mainly for bigger operations (switching between VSTs and sequencers or closing applications, for example) and the other controls for homing in on detail. The screen is a little bit of a disappointment (but realistically it was always going to be considering my initial excitement about it). I'm glad it is there however because it will speed up workflow, and that's what neko is all about, as well as being a completely open system, which we'll come on to now...

Expand, expand!

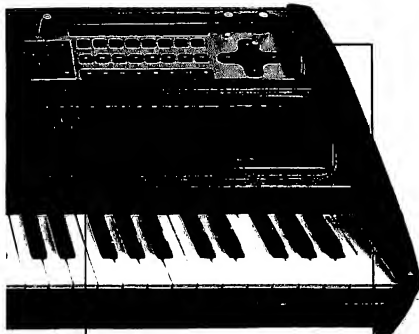
There's no getting away from it, neko has a PC at its heart, but this makes it just about the most expandable keyboard out there too. Do you use a PCI-based card solution like TC's PowerCore or Creamware's SCOPE? Just install it as normal. Do you want to use

Cubase or SONAR within neko rather than the supplied apps? Just install them as normal too! It really is that simple. So if you know your way around a PC you will be able to do it.

Hardware wise, neko packs a punch (see later) but it will inevitably be superseded, just like that PC you own. However, Open Labs will keep its processor, memory and hard drive specs right up there with the best and you can always upgrade those parts yourself. Or can you?

To test this out I opened neko up, just to make sure it was accessible enough to upgrade and to see what else was in there that makes it 'more than just a PC'.

With most review models we don't usually open them up as it's often difficult, breaks all manner of warranties and, let's face it, what are you going to find? "Oh, it's another tedious circuit board!" In this case, though, Open Labs positively encourage it! There's a chapter in the manual describing how to do it and they even supply the screwdriver to do it (the one I'd initially used as a



QWERTY KEYBOARD WITH SWITCH TO WINDOWS BUTTON

MASTER CONTROL AREA FEATURING THE VERY USEFUL 'OVERALL' VOLUME CONTROL, KEYPAD, APPLICATION FUNCTION KEYS AND JOYSTICK

touchscreen tool! Simply undo the two screws on each panel (see the Open neko walkthrough on p28), undo another four on each end and lift the case above the keyboard.

The panel is held, handily, on a couple of levers allowing the guts of neko to be displayed to the world without you having to actually remove the main panel – it just sits there open, like it's showing off. And you've guessed it, it resembles a PC with one or two extras. From left to right you get the CDRW drive, a modified M-Audio Delta 1010LT card (Open Labs have added extra ins and outs), the hard drive (80Gb), the motherboard and power supply – in fact, pretty much all of which can be found in any PC albeit in a different layout.

The differences here are the quality of the M-Audio card, the silent power supply (certainly quieter than some so-called dedicated music PCs we've had in recent), the silent fans for the processors (two, shown on p28) and the quality of the case. This seems to have been formed from solid steel (actually

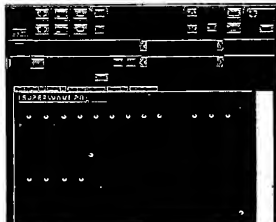
it's the same kind of aluminium used on aircraft) and helps make the neko a very quiet, compact (and ruddy heavy) system. As for the motherboard, this is a Tiger K8W board fitted with (in this case) two 2GHz AMD Opteron 64-bit processors. Now this is possibly the crucial issue you need to get your head around to understand where Open Labs are coming from with neko and goes some way to explain why the system is priced as it is. This two-way pro-

cessing gives neko enough power to not only run everything with ease – I experienced no power problems even with many apps running simultaneously – but also offers the 64-bit power that makes it somewhat future-proof for when the software and operating systems catch up to or are optimised for 64 bit. A search online from the

KARSYN - WHAT'S THAT?

One of the three main software applications pre-installed in neko is called Karsyn. I hadn't come across this before but wish I'd tried it before the other three! Instead, I loaded the much-lauded Traktion up to see how the neko's physical interaction worked with a VSTi host. Unfortunately – great application as Traktion undoubtedly is – I spent an age getting the routing sorted to try out those supplied virtual instruments (yes, I know it's a piece of cake, Traktion fans, when you know what you're doing!). Really though, I needn't have bothered with Traktion as Karsyn makes the job even easier as it's essentially an instrument (and effect) player or, as they call it, a 'live performance player'. It uses horizontal virtual modules and you simply load each one with an instrument to build up a virtual studio rack.

It's really simple stuff and aimed at those making the transition from hardware to software as no host sequencers are needed. I checked out some of the LinPlug instruments using Karsyn and it's an easy way to see and hear the power that neko has. The beauty of the Karsyn/neko partnership is that neko has enough power under the hood to run loads of instances of Karsyn. With those running, it's easy to switch between instruments giving neko more of the appearance of a traditional synth workstation and therefore more appeal to non PC users.



■ From PC to synth workstation: Karsyn

likes of www.bestpricecomputers.ltd.uk, www.walmart.co.uk and www.dell.co.uk revealed that an equivalent 64-bit system (with keyboard, monitor etc) could cost anywhere between £2,300 and £3,000 with the processors alone shifting from any-

“neko has a PC at its heart but this makes it just about the most expandable keyboard out there too. Hardware wise, neko packs a real punch but it will inevitably be superceded, just like your PC” >

where between £380 (www.dabs.co.uk) and £500. So that neko price starts to look a little more realistic...

The motherboard itself features plenty of connections. There are six PCI slots (five spare in the review machine) plus six USB and two FireWire so plenty of room to add power although you'll have to think care-



The CD-RW drive is on the side

< "If you look at neKo as a rock solid keyboard that comes with sounds, sequencers and an OS – and one which can then be expanded in any direction – then it starts to look more rosy" >

fully before adding PCI cards with their own breakout boxes such as the Creamware Pulsar because the motherboard sits sideways, so physically routing to the back will be a chore. The best thing is to simply use the M-Audio card for your ins and outs and invest in the cards that add clout (like the PowerCore, UAD-1 and older Creamware XTC card) rather than additional and confusing routing options.

Conclusion

If you look at neKo as just a PC with a keyboard, control surface, software bundle and interface, you'll be scared off by the price. But if you look at it as a rock solid keyboard with sounds, sequencers and an OS – and one which can be expanded in any direction – then it starts to look a bit more rosy.

But could you assemble an equivalent system cheaper yourself? Well, let's break it down: MIDI controllers (£500), software suite (£700 including Windows XP), 61-note weighted keyboard (£250), touchscreen (£1000), computer with RAM plus processors (about £2,300 as detailed earlier). That's £4,650 in total and you can choose your own software rather than use that supplied by Open Labs (good though it is).

That is considerably cheaper than the price of the one on test here (which is close to £7,000). You won't get such an elegant all-in-one solution and I doubt you'd make it as solid; and I mean that with both hardware and software. This is one of the most well-built keyboards I have ever come across – if it wasn't for that large screen you could probably drive a tank across it – and the software was rock solid during my test period too.

A stable and solid system like this also means a good live one, so neKo could well be an attractive proposition for you if you plan to take your PC-based music out on the road. I didn't have time to test the unit in my local pub (and to be fair they've never really asked me to perform my 'original' blend of ambient glitch breakbeat – that's ambigleat, Micra fans) but I suspect that neKo would be the perfect solution (although you'll need one hell of a flight case carry it). You have the control and the software and it's solid enough to take knocks. (Mind you, I

wouldn't spill a pint on that screen.)

So there you go: an expensive, but rock solid performer, and a great live PC option, but that's not quite the end of it. I'll leave you with another angle that you might not have considered.

There are a lot of music PC bundles out there with all sorts of silent fans, insulation, software bundles and hardware controllers. Yes, they are much cheaper than neKo, but you get the impression that their developers have never really considered the bigger picture for the musician, at least not as much as Open Labs have. With neKo, you get ultimate power and a system designed for the musician in one streamlined solution. Whether this is worth all the extra cash is debatable but at least you can try neKo for free with UK distributor Sonic Distribution's free loan offer (call for details).

Judging by Open Labs' initial claims they would probably want me to say it's the best keyboard workstation on the market but I don't really believe that. I'm more of the opinion that this is the kind of thing that PC music bundles should develop into over the next few years. Manufacturers need to look at touchscreen technology (in fact I know of some that are looking at 'poly-

SUPPLIED SOFTWARE

APPLICATIONS (OS)
MS Windows XP Pro
Open Labs Graphical User Interface

APPLICATIONS (MUSIC)
Mackie Tracktion
Synapse Audio Orion Pro
Karsyn (Forté 4J)
Tascam GigaStudio 32

VIRTUAL INSTRUMENTS
Audio Nerdz Delay Lama
Big Tick Cheese Machine
Buzz Room Lollapalooza Lite and BB3031 v2
Elogosa Sun RA
Green Oak Crystal
Guldo ORGANized Trio
IK SampleTank
LinPlug Cronox, Delta III, RMIII and Organ
MDA Eplano
RGCAudio Triangle
RumpelRausch Crazy Diamond
Tiki Claw
TweakBench Toad and Tapeworm

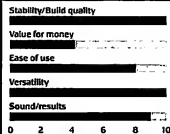
VIRTUAL EFFECTS
Big Tick Dual Delay, Hexaline and Nasty Shaper
Buzz Room Filter One, Watabe BUZ, Octo Buzz, Vox v2 and Twax v2
Kjaerhus Chorus, EQ, Flanger, Master Limiter and Classic Verb
Spin Audio FXDesigner, Room Verb and Spin Delay

phonic' versions of the one here with simultaneous finger action and depth or velocity control).

Musicians PC developers also need to look at streamlined OS' too. Anything that makes the process of making music on a computer – which let's face it, most of us are involved in – has to be a good thing, so Open Labs must be applauded in this respect. So while neKo is the most expensive 'synth type' workstation out there, it is also a new benchmark in the all-in-one PC music package. FM

VERDICT

Neko



A solid system that sets the new standard for the all-in-one music PC but it is expensive. The Pet Shop Boys'll probably get one!

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KEYBOARD

REVIEWS

Open Labs OpenSynth
neKo 64

Korg Legacy Collection

Arturia Minimoog V

East West/Quantum Leap
Symphonic Orchestra

Ken Continuum

Britan Personal
Orchestra

ension BFD

id Cinema



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Jordan Rudess

Rod Argent:
The Zombie Returns

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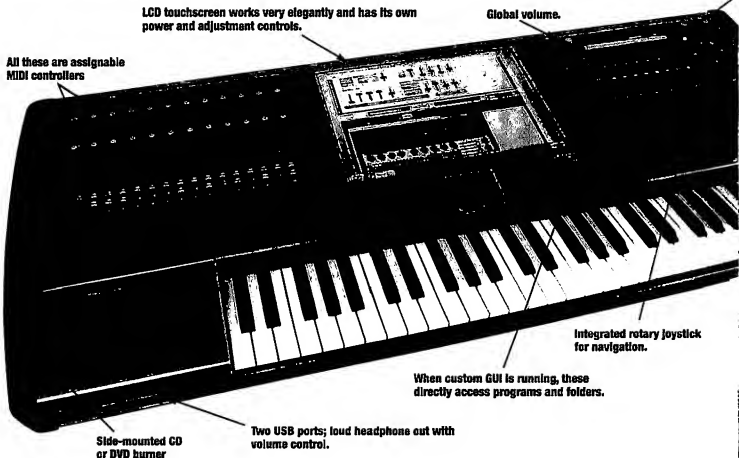
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66

KEYBOARD Reports

Open Labs OpenSynth neKo 64

INTEGRATED PC-BASED KEYBOARD WORKSTATION



by Stephen Fortner

Software instruments just keep getting better. As personal computers grow ever faster, developers take advantage of their ability to run more complex emulations. Several such products have won Key Buy awards in these pages, and more musicians than ever are gigging and recording with them. Fueling this fire is the argument that while the latest gotta-have keyboard may well seem long in the tooth by this time next year, a cutting-edge PC will be able to run at least the next several generations of soft synths, samplers, and DAW programs.

Still, going mobile with a laptop or rack PC and audio/MIDI interface carries its own set of issues: Some players don't like the aesthetics, and some want to keep setup simple, dealing only with power and audio connections. Furthermore, the computer's OS and applications need to be in good order to safeguard against the sort of glitches that make us appreciate our 10-year-old ROMplers. We dream of a machine that can run any soft synth, with power to handle a lot of 'em at once, and optimized to do it all stably and reliably. While purpose-built audio PCs have partially addressed these concerns, readers of *this* magazine might

be stoked if this axe was, in fact, a keyboard. Enter Austin, Texas-based Open Labs and their OpenSynth neKo system. Does it realize the dream? Read on.

Hardware

First things first. It's a PC. In fact I typed some of this review on it during a set break. Running Windows XP Pro, it integrates a 15" color LCD touchscreen, audio I/O, control surfaces, and software into a 61-key form factor. Systems are built to order around 64-bit AMD Opteron processors in single or dual configurations; Open Labs sent us a dual 2GHz unit with 2GB of RAM for review. Though fully compatible with today's 32-bit applications, the AMD



in
64-bit



chips promise vastly pumped-up processing muscle with future bit software.

To accommodate full-size cards, the mainboard is placed with its five PCI slots running horizontally in the case. Occupying one slot is an M-Audio Delta 1010LT card, connected by breakout cables to the I/O panel, which is exactly one rack space in size, and removable, allowing replacement with future I/O. At present, this panel adds features beyond a stock 1010LT, including balanced XLR outs and a second MIDI out.

digital studios, and SMPTE would be nice for working to picture. Also, this model's audio converters are on the card itself, smack in the middle of the mainboard's electrically noisy environs, which can create interference. With my mixer at unity, some digital grunge was audible enough that I could actually hear it modulate as I moved windows around the screen. It was in the background, and not so loud as to be an issue in most live situations. Sure enough, the noise disappeared when I installed and played through an RME Multiface, whose A/D/A's live in an external box. The problem, which is peculiar neither to neKro nor M-Audio's products, could easily be eliminated: Locate the converters on the I/O panel, then shield the heck out of it.

Standard on higher-end neKos, the internal uninterruptable power supply (UPS) works flawlessly, switching to internal battery packs that charge when the keyboard is plugged in. Up to 15 minutes of reserve power is available, but with cooling fans and big LCD going full tilt, I recommend a speedy save and shutdown. If giggling, there's time to finish your song; prog rockers should play a "radio edit" and then use some beer tickets while the sound tech hunts for the breakers.

Single Opteron processor, \$4,495 (1.4GHz), \$5,295 (2.0GHz); Dual Opteron processor, \$5,195 (1.4GHz), \$7,495 (2.0GHz)

OPENSYNTHNEKO

CC pedal, footswitch, S/PDIF, and word clock connectors.

A plethora of physical controls festoons the front panel. With the exception of automated, touch-sensitive faders, which Open Labs hinted are possible in the future, there's plenty of everything. The slabs-o-tweakin' that fill four bays surrounding the touchscreen are swappable, in fact, each is just a USB device. Standard issue includes fader and knob boards, a computer keyboard, and a master panel containing the volume knob and sequencer transport.

As of this writing, controllers are largely left for the user to assign, even with the apps and instruments that come bundled with neKo. Fiddling around occasionally uncovers a random useful mapping. In ORGANIZED Trio, for example, the first five faders just happened to control the top five drawbars for the upper manual. I spoke to Open Labs CEO Victor Wong, who recognized the need for more complete control assignments out-of-box, and indicated that some should be well on the way by the time you read this.

www.keyboardmag.com AUGUST 2004 **KEYBOARD** 51

Open Labs neKo 64

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Audio Bus

Instrument Module w/controls hidden

Instrument Module showing controls

Soft synths on your hardware synth? How cool is that?

Scenes are displayed in the center

This bus has a send effect and is assigned to soundcard outs 1 and 2

VSTi Preset Name

Here are some screens you're likely to see on the neKo. The inset on the right I snapped as I wrote this review using MS Word — on the neKo itself.

maneuverable than a knife, so the other guy could get in a good jab or two while you're busy authenticating launch codes. Fortunately, neKo exhibited Sean Connery-like "focush and rezillience" in the depths of live performance. With a rack of several instruments and the buffer at 128 samples, the busiest, densest playing I could muster caused no audible latency, lost notes, or timing slop.

The neKo sat in for a Yamaha Motif and Clavia Nord Electro 2. I still brought my Kurzweil 2600, and though I used it for some piano and Rhodes, it served mostly as a second manual, and wasn't needed for emergency backup. One of my more complicated setups was for our arrangement of Michael Jackson's "Workin' Day and Night," which involves a Moog bass, piano, and pad split on my bottom keyboard, and a second

pad plus two flavors of stab brass (synth and "real") up top. It was all a breeze in Karsyn's MIDI config windows. Each instrument has such a window, and note ranges are set directly on internal and external keyboards. This is also where you assign controllers: Hit "Train," reach for a knob or fader, and its CC number will appear at the top of a table. To its right is a pull-down menu of destinations recognized by

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the current instrument. Eventually, I had templates set up for ORGANized Trio, Sampletank, one of the included LinPlug synths, and Hypersonic (reviewed June '04). It took an afternoon's work, but ultimately, I had considerably more real-time control over my live sound than I'm used to. The only thing I found myself wanting were global, hard-mapped octave shift buttons.

In the studio, I put neKo through her paces with Cubase SX and the included Mackie Traktion, and she was rock solid with both. My only gripe is that the internal keyboard transmits on MIDI channel 1 only. This is a non-issue if your software can re-channelize on the receiving end, as with Cubase, in which I could monitor any VSTi by merely touching the MIDI track I'd assigned to control it. It was the same in Traktion, where I visually pointed control sources at tracks.

In Gigastudio, though, which expects to receive on all channels, I could only play the sound in slot 1, unless I hooked up another keyboard to transmit on 2-16. Returning to Karsyn, I found that it can save channel maps for each instrument. Still, with a multitimbral plug-in like Sampletank, there's no quick way to click on channel buttons and simply hear what's there; you have to go to the MIDI config window, remap, then go back to the VSTi. (Hypersonic, though, can

link channels to 1 internally.) To be fair, this is because most plug-ins expect to be addressed by a sequencer or controller keyboard. What neKo needs here is user control over MIDI transmit parameters, upstream of any receiving software. The default mode could be retained for stuff that already works well. The good news: I spoke to the company, and they agreed.

Horsepower? It's in league with the best host-based, dual-brain DAW's I've ever seen. Live and in the studio, any large combination of instruments I would actually use didn't push the CPU above 40%, and this number was only seen as half a dozen soft synths played back alongside 24 pre-recorded audio tracks in Cubase. As I intentionally maxed out the machine with cacophonous torture tests, dropouts built up gradually, leaving my "music" mostly intelligible until the very end.

Conclusions

In spite of the concerns I've raised, I'm more than impressed with neKo's sound, power, stability, and complete flexibility. Its strongest suit is definitely the integration in one chassis of all components needed for taking a software-based studio or performance rig mobile. As much of a tech-lovin' geek as I am, I probably

would have done so much later were it not for neKo. Its future success depends in significant part on "middleware" such as templates that make its sexy controls work instantly with plug-ins and music apps. Here's why: Buyers of custom audio PCs (which Open Labs also makes) expect to configure things themselves. Put black 'n' whites on that same PC, and you invite keyboardists' expectations, one of which is to hear something change the first time we grab a knob.

Is it a good value? Yes. Quote-surfing for a functionally identical system, including PC, audio card, MIDI keyboard, control surfaces, touchscreen, and software, I wound up close enough that the thought of regularly transporting and connecting such a system more than offset the difference in my mind. Also, though the dual 2GHz version commands a premium, the dual 1.4 is still plenty powerful, and the clear bang-for-buck leader of the line. Should your next keyboard be a music PC? That's a huge question, and not one I can answer for you. But if you've ever wanted your next music PC to be a keyboard, the OpenSynth neKo 64 merits very serious consideration. There's nothing else quite like it. ■

Stephen Fortner loves questions and comments. Drop him a line at stevefortner@cox.net.

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THANK YE, NAMM

The West was won long ago, but every year musical manufacturers come out with their big guns ablazin' to Orange County, Calif., for the Winter NAMM convention. And while the OC now raises more delusional teens than citrus crops, this year's NAMM proved that there are still new frontiers to explore in audio technology. Much obliged.

Hardware/software synergy ruled the roost this year, and perhaps more than anyone else, Open Labs bestowed our hearts with its **Mixe Portable Media**

Workcenter. It's a full Windows XP computer with preloaded software and 15-inch touch-screen display built into a keyboard workstation with audio and MIDI I/O, FireWire and USB ports, video outputs and more, all in a 37lb. portable package. Korg blew a few minds with the **Radial**, a 24-note synth based on Korg's Multi Modeling Technology. M-Audio packed its

booth the gills with gear.

The **Oxygen 8 v2**, an update to the wildly popular 25-key USB MIDI controller,

added 10 user memories and transport controls, and it also comes in 49-key and 61-key versions with sliders. M-Audio's all new **Atom** series of USB MIDI controllers, in 25-, 49- and 61-key versions, includes backlit LCDs, semiweighted action, 20 memory locations, transport controls, eight MIDI drum pads and eight knobs. Finally, M-Audio introduced the **Sputnik** large diaphragm vacuum-tube condenser mic and the **EX-66** high-definition reference monitors. Roland gave shout-outs to its own past with a ton of new hardware, including the **MC-608** sampling groovebox, the **SH-201** analog modeling synth and the **Juno-G** expandable synth with onboard audio/MIDI recording. The Yamaha-distributed **CME** exploded with four new **VX** flagship MIDI controllers, including motorized faders, MIDI drum pads, transport controls and many knobs and sliders. Yamaha also debuted its **MW10** and **MW12** affordable USB mixers.

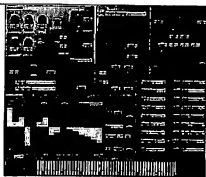
No hard drive shall go unfilled in 2006. Software poured down from the heavens, first with the announcement that **Sony Acid Pro 6** is now finally a full-featured DAW with multitrack audio and MIDI recording in addition to its already-established feature set. **MOTU** updated its flagship **DAW to Digital Performer 5**, with many advanced scoring features to satisfy composers, as well as clip-based automation and five new instruments. **MOTU** also unleashed the powerful **Ethno Instrument**, a comprehensive world-music synth for all major

Mac and PC plug-in formats. Every remixer will want to grab **Celemony's Melodyne 3**, which expands its extreme audio editing and pitch-shifting abilities to polyphonic textures. **Arturia** combined two synth classics, the **Sequential Circuits Prophet-5** and **Prophet-VS**, into one hybrid modeling plug-in, the **Prophet V**. It redefines fat for the already bloated software market. **Erma's** updated **Emulator X2** software sampler broke new ground with its automated sampling, audio manipulation and more.

Two plug-in powerhouses scored huge hardware partnerships. **Waves** licensed from **Solid State Logic** the **SSL 4000** Collection, comprising the **SSL G-Master Buss Compressor**, the **SSL E-Channel** and the **SSL G-Equalizer** plug-ins modeled from the immortal mixing hardware. **Universal Audio** also inked an agreement with **AMS Neve** to produce software emulations of **Neve** products for its **UAD-1** DSP system. The first fruit of that union will be the **Neve 1073** Equalizer plug-in.

More hardware/software synergy came with **Native Instruments' Kore**, which combines a software host with a hardware interface to bring software instruments of any format into one standardized interface for any DAW, and the system is also optimized for live performance. **Cakewalk** also entered the hardware mix with its **Sonar Power Studio 250** and **Power Studio 660** bundles that combine a full version of **Sonar 5** Studio with a 2-channel USB audio/MIDI interface (250) or a 6-channel FireWire audio/MIDI interface (660). **Cakewalk** also previewed its powerful new **Rapture** soft synth for Mac/PC.

The DJ market would not be silenced, either. Particularly innovative was **Numarik**, unveiling the **TTUSB** turntable with USB, the **X2** turntable with an MP3 CD player and two hot VJ products, the **VJ01 DVD/MP3/CD** media player and the **AVM02 audio/video** mixer with effects. A new high-end DJ gear company, **Cortex**, announced rackmount and tabletop devices called **HDC** and **HTDT** that will include hard drives and compatibility with any USB-compatible device—including iPods—to mix digital music with full pitch and scratch capabilities. **Scratch** battle DJs were shown love from **Vestax's** new **PMC-08** Pro mixer and the **Audio Innovate AEM100** mixer with insane control over unique effects. **Rane/Serato** stole the hardware/software hybrid honors, however, with the **Scratch Live 1.5** software combined with the new **TTM 57SL** mixer, which mixes vinyl, CD and digital files with hands-on hardware control over the software.



QUICK HITS

TRANCE BY THE BOOK

Whoever said "Those who can't do, teach" can see us after class. In the **Trance Experience (\$80, www.sound.org)**, international DJ/producer **Tornstén** Fassbender explains step-by-step how he produced three versions of a trance club hit: the original, the remix and the chill-out club. But that's just the printed matter; what really matters are the five DVDs that come with the book. These discs contain full DAW sessions for **Pro Tools**, **Logic**, **Digital Performer**, **Cubase SX**, **Nuendo**, **Sonar** and **GarageBand**, so you can follow along with the lessons.



HE'S NOT HEAVY

Eighty-five thousand people can't be wrong. That's how many electronic music fans attended **Delta Heavy** in 2002, the groundbreaking electronic music tour in the United States. And now you can watch **Sasha**, **John Digweed** and **Jimmy Van M** (the tour's brainchild) spin vinyl across America in the DVD **Sasha & John Digweed Present Delta Heavy (System Records, 2005)**. Produced and directed by **Ben Turner**, the documentary features more than an hour of concert footage and behind-the-scenes interviews. The DVD also includes stills from the gigs, as well as artist bios and discographies.

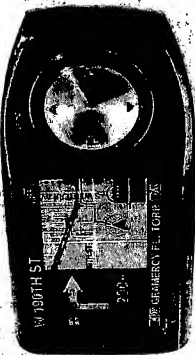


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Now you can virtually claw your way to the top of the music charts and win real money. At **www.musicrivals.com**, launched in 2005, you play the role of a lead singer in a band and control your superstar destiny. After registering, name your band, pick your genre and play the game. As you sell CDs and play gigs, you're rated on talent, stardom and reputation. The first prize per round (each lasting a month) is \$100. But the competition goes on, so watch out, or you'll go into debt, and your band will split up!

musicrivals.com

Setting From Here to There, With a Musical Backdrop



Portable navigation systems that sit on dashboards can be moved from car to car, but they typically have small screens and controls that can be hard to reach. Built-in navigation-entertainment systems have bigger screens and convenient controls, but they can't be transferred to another car. The PMD-B100 Blackbird from Alpine combines features from both types.

As a stand-alone dashboard unit, the \$750 Blackbird, available now through Alpine car stereo dealers, sits in a cradle that provides power, an amplified speaker and an FM modulator that conveys its instructions, turn by turn, through the car's radio.

A tuner can pick up traffic information in major metropolitan areas (for a subscription fee not yet set) and play it through speakers or show it as a map overlay on its 3.5-inch color screen.

An optional docking station, due out this spring for about \$200, will link the Blackbird to an in-dash Alpine DVD/CD system, allowing it to be operated by the system's controls and its maps to be displayed on the system's large monitor.

Maps of all 50 states and Canada are already loaded, and can be updated via a U.S.B. connection to a home computer.

The Blackbird also plays MP3 and WMA audio files.

IVAN BERGER

Synthesizer, Audio Mixer and Video Editor in a Box

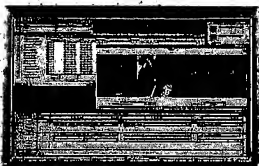
Many programs let you make music on a computer, but the MiKo, a portable media center from Open Labs, is a computer-agnostic center for making music and a whole lot more. The MiKo—a combination synthesizer, audio mixing station, video editing console, broadband Internet hub—has a 64-bit M.D. Athlon processor and Windows XP under its considerably multifaceted hood.

It comes with a WERTY keyboard, a 15-inch touch-screen monitor and plenty of ports to connect audio devices, digital camcorders and video cameras to record and edit multimedia projects. The unit's on-board includes a 4-note musical keyboard, D.J. controls and cross-faders, and

a library of 5,000 preset sounds and effects. The MiKo, which can work with third-party audio and video editing programs, includes its own suite of multimedia software.

After editing, audio and video projects can be burned to a CD or DVD, or uploaded directly to the Internet through the console's Ethernet or Wi-Fi network connections.

Basic configurations of the MiKo work center around \$2,000; it can be ordered from www.openlabs.com, where full specifications are available. The MiKo can also be customized with processor, hard drive and memory upgrades. J.D. BIEDSDORFER



CIRCUITS



A Friendly Gorilla Has Legs To Keep Your Camera From Blurring Your Shots

Browse a photo album by any beginning photographer and you're likely to see blurry shots. The Joby Gorillapod, a 1.58-ounce tripod, can help budding photographers get a steady shot.

The Gorillapod is malleable and as cute as a chimp. Each of the three legs bends and twists in different ways, allowing you to attach a lightweight camera to anything and everything to grab a picture from an interesting angle.

You can use it to hang the camera from a tree—gorilla-style—or wrap it around a railing for group shots. The tripod, available online (gorillapod.com) for \$24.95, has rubberized feet, a quick-release connector and a ring that locks the camera to the tripod.

Made primarily for smaller point-and-shoot cameras that weigh a pound or less, the Gorillapod won't help you focus or figure out what white balance is, but it can keep a camera steady in places where traditional tripods can't. And a model for camcorders and larger cameras will be available soon.

JOHN BIGGS

Analysis from FORTUNE: Plugged in

Column archive

Music for the MySpace generation

OpenLabs has created a music studio-in-a-box that could unleash even more amateur music and videos, says Fortune's Stephanie Mehta.

By Stephanie Mehta, Fortune senior writer

November 3 2006: 6:08 AM EST

FORTUNE

NEW YORK (Fortune) — Thanks to social networking sites such as MySpace and video-sharing company YouTube, we now know that there are thousands of amateur amateurs yearning to express themselves in song and film. Indeed, sometimes it seems there's an entire cohort of young people who are natural born performance artists.

At least that's what Victor Wong is betting on. Wong is chairman and CEO of OpenLabs, a four-year-old, privately held company that designs gear for performing and recording music. OpenLabs' NeKo production stations are big hits with music professionals. (Producer Timbaland, new Tim Mosley, of "SexyBack" and "Promiscuous Girl" fame, is a fan, as is Reba McEntire's keyboardist, who played a NeKo machine on her tour.)

This fall OpenLabs started shipping a miniature version of the NeKo — dubbed "the MiKo" — aimed squarely at the MySpace generation. "The original design goal was to get it into the hands of people who are professionals," Wong says. "But what we realized is that a lot of people want to do multimedia work. They may want to create music, make films, surf the internet. And they want it all in one box."

The MiKo is like a musical Swiss Army knife: In a device that's about twice the size of your typical synthesizer, OpenLabs packs a fully-loaded Windows computer, a 37-note keyboard, a 15-inch touch screen, a video mixer, DJ controls, ports for MP3 players and camcorders and a Wi-Fi chip for broadband connections to the Internet. The system retails for about \$2,500 — about a thousand bucks more than a new MacBook.

So what can an artistically minded kid do with a MiKo? He can, with little to no experience, start composing music using some of the 5,000 preset sounds that come with the MiKo. He can load his MP3 files into the machine and start doing DJ-style music mixes. He can create some beats and rap on top of them. Or, he can download video he's shot on his camcorder, edit it on the MiKo's screen, add a soundtrack and using the Wi-Fi connections, post his masterpiece on YouTube or his video blog.

This machine isn't just his play, though. OpenLabs says Jonathan Davis, lead singer of the band Korn, has been using the MiKo on the band's tour bus to write new songs. (We wanted to talk to Davis about all this, but like a true rocker, he doesn't exactly keep normal business hours.)

Though it boasts a roster of pop musicians and producers as clients, OpenLabs is at its heart a technology company. Its machines incorporate 64-bit computer processing. (That means it can process twice the data as a 32-bit chip.) The company also develops software, such as a new keyboard control application, that lets users sample any MIDI (short for Musical Instrument Digital Interface) keyboard sound into a NeKo or MiKo device, without loss of sound quality, a big deal to music professionals.

That OpenLabs has cred in both the music and computing industries is a big plus as those worlds increasingly collide, says Nyl Adilekan, a top salesman at national instrument retailer Guitar Center. "They've successfully combined the PC and the keyboard," says Adilekan, who works in Manhattan. He says many of his clients are trying to streamline their keyboards and other music-making gear. OpenLabs puts all the software and hardware into a relatively portable package.

Still, the fact that such a sophisticated instrument is targeting teens and young people whose online contributions generally fall far short of art, speaks volumes about today's youth — and their parents, who would most likely be the ones to shell out the \$2,500 needed to buy a MiKo.

It would be easy to argue that the Internet has made it easier than ever for kids to distribute their wares, but reality contends such as "American Idol" and "Rock Star" certainly have fueled the fantasy that the kid next door (or the teen lurking on a keyboard upstairs) might just be the next musical phenomenon.

So what if you buy a MiKo for your musician wannabe kid, who next month decides she really wants to focus on her fledgling tennis career? If you don't want to create content, you might still want to view video content or access music from iTunes or somewhere else, and this machine does this better than anything else out there," Wong says. "Worst case, if you buy our products, you're buying one of the most sophisticated computer products out there."

Sony developing video Walkman, Sony Corp. (Charts), said on Thursday it is developing a video-capable Walkman, playing catch-up with Apple Computer Inc.'s market-leading iPod.

Apple's new patent — iPhone speculation, Apple Computer Inc. (Charts) won a patent for a speech-recognition technology



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Mehta. (Read the column.)

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